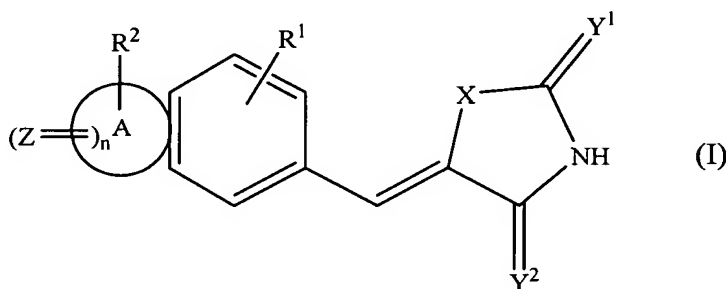


IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method for the prophylaxis and/or treatment of one or more diseases or disorders, selected from autoimmune disorders and/or inflammatory diseases, cardiovascular diseases, neurodegenerative diseases, bacterial or viral infections, kidney diseases, platelet aggregation, cancer, graft rejection or lung injuries, comprising, administering to a subject in need thereof, an effective amount of ~~Use of~~ a compound of ~~of~~ according to formula (I):



as well as its geometrical isomers, its optically active forms as enantiomers, diastereomers and its racemate forms, as well as pharmaceutically acceptable salts and pharmaceutically active derivatives thereof, wherein

A is a 5-8 membered heterocyclic or carbocyclic group, wherein said carbocyclic group may be fused with aryl, heteroaryl, cycloalkyl or heterocycloalkyl;

X is S, O or NH;

Y¹ and Y² are independently S, O or NH NH;

Z is S or O;

R¹ is H, CN, carboxy, acyl, C₁-C₆-alkoxy, halogen, hydroxy, acyloxy, C₁-C₆-alkyl carboxy, C₁-C₆-alkyl acyloxy, C₁-C₆-alkyl alkoxy, alkoxycarbonyl, C₁-C₆-alkyl alkoxycarbonyl, aminocarbonyl, C₁-C₆-alkyl aminocarbonyl, acylamino, C₁-C₆-alkyl acylamino, ureido, C₁-C₆-alkyl ureido, amino, C₁-C₆-alkyl amino, ammonium, sulfonyloxy,

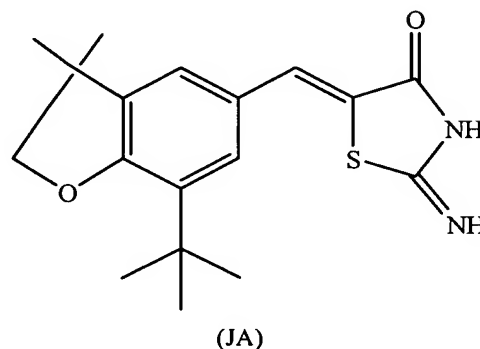
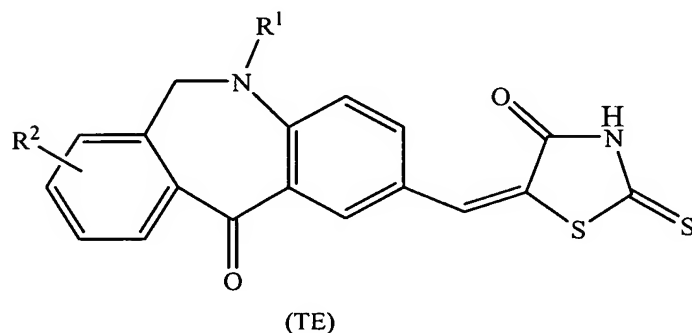
C₁-C₆-alkyl sulfonyloxy, sulfonyl, C₁-C₆-alkyl sulfonyl, sulfinyl, C₁-C₆-alkyl sulfinyl, sulfanyl, C₁-C₆-alkyl sulfanyl, sulfonylamino, C₁-C₆-alkyl sulfonylamino or carbamate;

R² is selected from the group ~~comprising or~~ consisting of H, halogen, acyl, amino, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₁-C₆-alkyl carboxy, C₁-C₆-alkyl acyl, C₁-C₆-alkyl alkoxy, C₁-C₆-alkyl aminocarbonyl, C₁-C₆-alkyl acyloxy, C₁-C₆-alkyl acylamino, C₁-C₆-alkyl ureido, C₁-C₆-alkyl amino, C₁-C₆-alkyl alkoxy, C₁-C₆-alkyl sulfanyl, C₁-C₆-alkyl sulfinyl, C₁-C₆-alkyl sulfonyl, C₁-C₆-alkyl sulfonylaminoaryl, aryl, C₃-C₈-cycloalkyl or heterocycloalkyl, C₁-C₆-alkyl aryl, C₂-C₆-alkenyl-aryl, C₂-C₆-alkynyl aryl, carboxy, cyano, hydroxy, C₁-C₆-alkoxy, nitro, acylamino, ureido, C₁-C₆-alkyl carbamate, sulfonylamino, sulfanyl, or sulfonyl;

n is 0, 1 or 2;

~~for the preparation of a medicament for the prophylaxis and/or treatment of autoimmune disorders and/or inflammatory diseases, cardiovascular diseases, neurodegenerative diseases, bacterial or viral infections, kidney diseases, platelet aggregation, cancer, graft rejection or lung injuries;~~

with the proviso that the following compounds are excluded:



wherein R¹ is a lower alkyl or aralkyl and R² is H or a halogen.

Claim 2 (Currently Amended): The method Use of a compound according to claim 1, wherein said one or more diseases are selected from ~~in~~ the group consisting of including multiple sclerosis, psoriasis, rheumatoid arthritis, ~~multiple sclerosis~~[[,]] systemic lupus erythematosus, inflammatory bowel disease, lung inflammation, and thrombosis or brain infection/inflammation such as meningitis or encephalitis.

Claim 3 (Currently Amended): The method Use of a compound according to claim 1, wherein said one or more diseases are selected from ~~in~~ the group consisting of including Alzheimer's disease, Huntington's disease, CNS trauma, stroke and ~~or~~ ischemic conditions.

Claim 4 (Currently Amended): The method Use of a compound according to claim 1, wherein said one or more diseases are selected from ~~in~~ the group consisting of including atherosclerosis, heart hypertrophy, cardiac myocyte dysfunction, elevated blood pressure and ~~or~~ vasoconstriction.

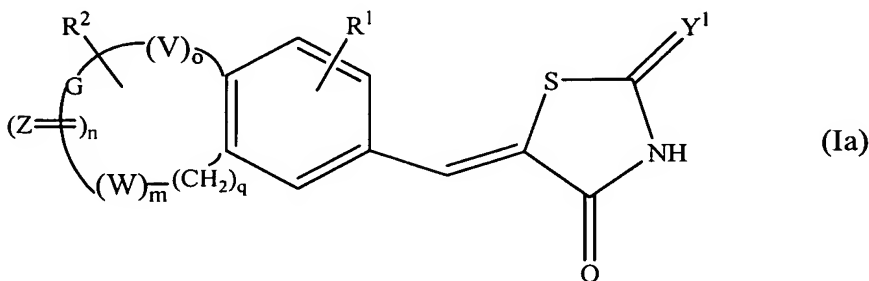
Claim 5 (Currently Amended): The method Use of a compound according to claim 1, wherein said one or more diseases or disorders are selected from ~~in~~ the group consisting of including chronic obstructive pulmonary disease, anaphylactic shock fibrosis, psoriasis, allergic diseases, asthma, stroke or ischemic conditions, ischemia reperfusion, platelets aggregation/activation, skeletal muscle atrophy/hypertrophy, leukocyte recruitment in cancer tissue, pancreatitis, multiorgane failure, angiogenesis, invasion metastasis, ~~in particular~~ melanoma, Karposi's sarcoma, acute and chronic bacterial and viral infections, sepsis, transplantation graft rejection, glomerulo sclerosis, glomerulo nephritis, progressive renal fibrosis, endothelial and epithelial injuries in the lung and ~~or in~~ general lung airways inflammation.

Claim 6 (Currently Amended): The method Use according to claim 1 ~~any of the precedent claims~~, wherein Y^1 and Y^2 are both oxygen.

Claim 7 (Currently Amended): The method Use according to claim 1 ~~any of the precedent claims~~, wherein n is 1 or 2 and R^1 and R^2 are both H.

Claim 8 (Currently Amended): The method Use of compounds according to claim 1 ~~any of the preceding claims~~, wherein, in the compound of formula (I), X is S, Y^1 and Y^2 are both O, R^1 and R^2 ~~are as above defined~~ and n is 0.

Claim 9 (Currently Amended): The method Use according to claim 1 ~~any of the precedent claims~~, whereby the compound of formula (I) is a thiazolidinone-vinyl fused-benzene derivative of has the formula (Ia)



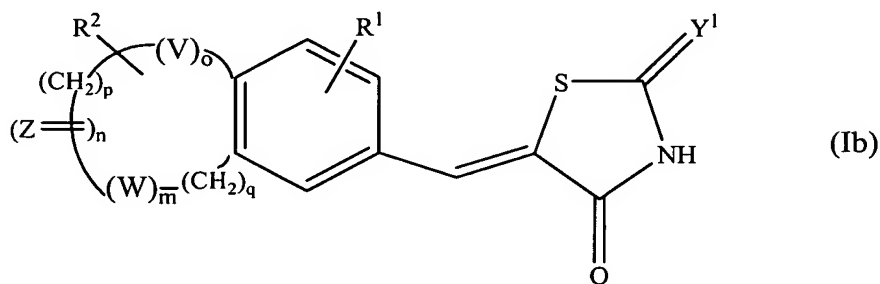
wherein Y^1 , R^1 , R^2 , Z and n are as above defined for the compound of formula (I);
V and W are each, independently from each other, O, S or $-NR^3$ wherein R^3 is H or C_1-C_6 alkyl;

G is a C_1-C_5 alkylene or a C_1-C_5 alkenylene group;

o and m are each, independently from each other, 0 or 1; and

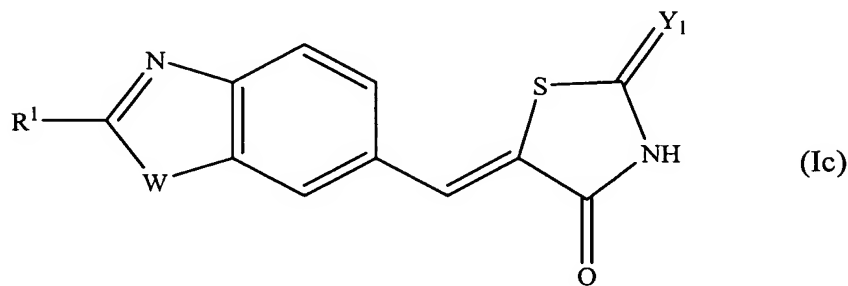
q is an integer from 0 to 4.

Claim 10 (Currently Amended): The method Use according to claim 9, whereby the thiazolidinone-vinyl fused-benzene derivative has the formula (Ib):



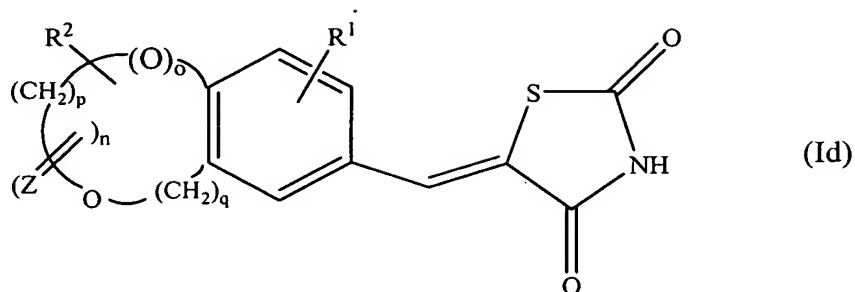
wherein Y^1 , R^1 , R^2 , V , Z , W , m , n , o , q are as above defined in the compound of formula (Ia), and p is an integer from 1 to 4.

Claim 11 (Currently Amended): The method Use according to claim 9 ~~any of claims 9 or 10~~, whereby the thiazolidinone-vinyl fused-benzene derivative has the formula (Ic):



wherein W , as well as R^1 and Y^1 , are as above defined in the compound of formula (Ia).

Claim 12 (Currently Amended): The method Use according to claim 9 ~~any of claims 9 or 10~~, whereby the thiazolidinone-vinyl fused-benzene derivative has the formula (Id):



wherein R^1 , R^2 , Z and n are as above defined in formula (Ia); o is 0 or 1;
 p is an integer from 1 to 4 and q is an integer from 0 to 4.

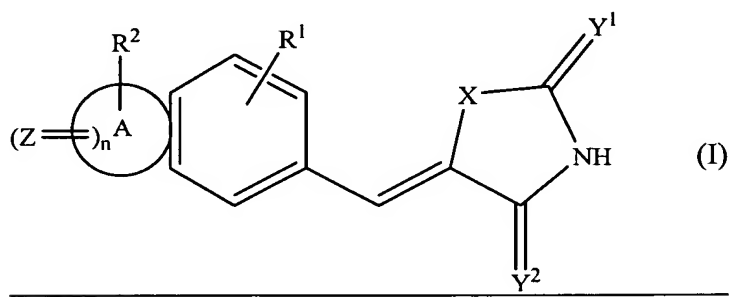
Claim 13 (Currently Amended): The method Use of compounds according to claim 9, any of claims 9, 10 or 12 wherein, in formula (Ia), Z is O, m is 0, n is 1, p is 1 or 2, q is 1, and R^1 and R^2 are each as above defined for the compound of formula (Ia).

Claim 14 (Currently Amended): The method Use of compounds according to claim 9, any of claims 9, 10 or 12 wherein, in formula (Ia), m is 1, n is 0, p is 1 or 2, q is 0, and R^1 and R^2 are each as above defined for the compound of formula (Ia).

Claim 15 (Currently Amended): The method Use according to claim 9, any of claims 9, 10 and 12 to 14 wherein, in formula (Ia), m is 0, n is 1, p is 1 or 2, q is 0, and R^1 and R^2 are each as defined above in claim 1 for the compound of formula (I).

Claim 16 (Currently Amended): The method Use according to claim 9, any of claims 9, 10 and 12 to 14 wherein, in formula (Ia), R^1 is halogen or hydrogen.

Claim 17 (Currently Amended): A method for the prophylaxis and/or treatment of one or more diseases mediated by PI3 kinase, comprising administering to a subject in need thereof, an effective amount of a compound of formula (I): ~~Use according to any of claims 1 to 16 for the modulation, in particular for the inhibition, of the PI3 kinase activity~~



as well as its geometrical isomers, its optically active forms as enantiomers, diastereomers and its racemate forms, as well as pharmaceutically acceptable salts and pharmaceutically active derivatives thereof, wherein

A is a 5-8 membered heterocyclic or carbocyclic group, wherein said carbocyclic group may be fused with aryl, heteroaryl, cycloalkyl or heterocycloalkyl;

X is S, O or NH;

Y¹ and Y² are independently S, O or NH;

Z is S or O;

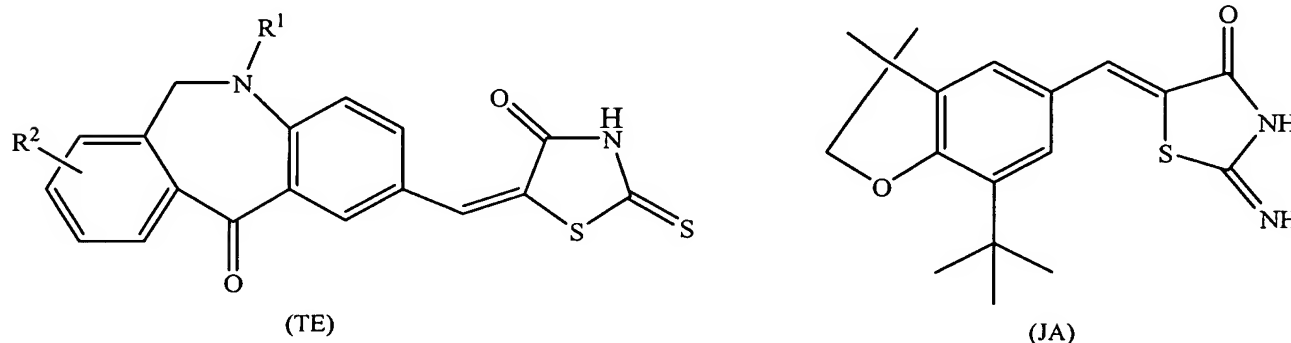
R¹ is H, CN, carboxy, acyl, C₁-C₆-alkoxy, halogen, hydroxy, acyloxy, C₁-C₆-alkyl carboxy, C₁-C₆-alkyl acyloxy, C₁-C₆-alkyl alkoxy, alkoxycarbonyl, C₁-C₆-alkyl alkoxycarbonyl, aminocarbonyl, C₁-C₆-alkyl aminocarbonyl, acylamino, C₁-C₆-alkyl acylamino, ureido, C₁-C₆-alkyl ureido, amino, C₁-C₆-alkyl amino, ammonium, sulfonyloxy, C₁-C₆-alkyl sulfonyloxy, sulfonyl, C₁-C₆-alkyl sulfonyl, sulfinyl, C₁-C₆-alkyl sulfinyl, sulfanyl, C₁-C₆-alkyl sulfanyl, sulfonylamino, C₁-C₆-alkyl sulfonylamino or carbamate;

R² is selected from the group consisting of H, halogen, acyl, amino, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₁-C₆-alkyl carboxy, C₁-C₆-alkyl acyl, C₁-C₆-alkyl

alkoxycarbonyl, C₁-C₆-alkyl aminocarbonyl, C₁-C₆-alkyl acyloxy, C₁-C₆-alkyl acylamino, C₁-C₆-alkyl ureido, C₁-C₆-alkyl amino, C₁-C₆-alkyl alkoxy, C₁-C₆-alkyl sulfanyl, C₁-C₆-alkyl sulfinyl, C₁-C₆-alkyl sulfonyl, C₁-C₆-alkyl sulfonylaminoaryl, aryl, C₃-C₈-cycloalkyl or heterocycloalkyl, C₁-C₆-alkyl aryl, C₂-C₆-alkenyl-aryl, C₂-C₆-alkynyl aryl, carboxy, cyano, hydroxy, C₁-C₆-alkoxy, nitro, acylamino, ureido, C₁-C₆-alkyl carbamate, sulfonylamino, sulfanyl, and sulfonyl;

n is 0, 1 or 2;

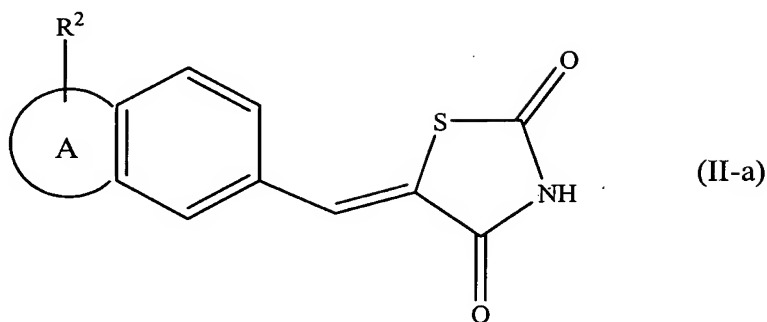
with the proviso that the following compounds are excluded



wherein R¹ is a lower alkyl or aralkyl and R² is H or a halogen.

Claim 18 (Currently Amended): The method Use according to claim 17, wherein said PI3 kinase is a PI3 kinase γ .

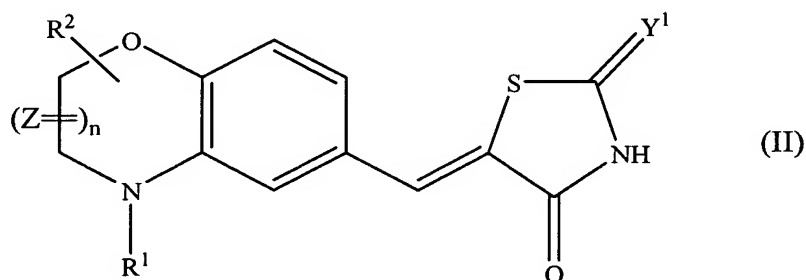
Claim 19 (Currently Amended): A thiazolidinone-vinyl fused-benzene derivative according to formula (II-a):



wherein A is selected from the group consisting of dioxol, dioxin, dihydrofuran, (dihydro) furanyl, (dihydro)oxaziny, pyridinyl, isooxazolyl, oxazolyl (dihydro)naphthalenyl, pyrimidinyl, triazolyl, imidazolyl, pyrazinyl, thiazolidinyl, thiadiazolyl, and oxadiazolyl;

R² is selected from the group ~~comprising or~~ consisting of H, halogen, acyl, amino, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkenyl, C₁-C₆-alkyl carboxy, C₁-C₆-alkyl acyl, C₁-C₆-alkyl alkoxycarbonyl, C₁-C₆-alkyl aminocarbonyl, C₁-C₆-alkyl acyloxy, C₁-C₆-alkyl acylamino, C₁-C₆-alkyl ureido, C₁-C₆-alkyl carbamate, C₁-C₆-alkyl amino, C₁-C₆-alkyl alkoxy, C₁-C₆-alkyl sulfanyl, C₁-C₆-alkyl sulfinyl, C₁-C₆-alkyl sulfonyl, C₁-C₆-alkyl sulfonylaminoaryl, aryl, C₃-C₈-cycloalkyl or heterocycloalkyl, C₁-C₆-alkyl aryl, C₂-C₆-alkenyl-aryl, C₂-C₆-alkynyl aryl, carboxy, cyano, hydroxy, C₁-C₆-alkoxy, nitro, acylamino, ureido, sulfonylamino, sulfanyl, and ~~or~~ sulfonyl.

Claim 20 (Currently Amended): A thiazolidinone-vinyl fused-benzene derivative according to formula (II):



as well as its geometrical isomers, its optically active forms as enantiomers, diastereomers and its racemate forms, as well as pharmaceutically acceptable salts and pharmaceutically active derivatives thereof, wherein

Y¹ is S, O or NH;

Z is S or O;

R¹ is H, CN, carboxy, acyl, C₁-C₆-alkoxy, halogen, hydroxy, acyloxy, C₁-C₆-alkyl carboxy, C₁-C₆-alkyl acyloxy, C₁-C₆-alkyl alkoxy, alkoxycarbonyl, C₁-C₆-alkyl alkoxycarbonyl, aminocarbonyl, C₁-C₆-alkyl aminocarbonyl, acylamino, C₁-C₆-alkyl acylamino, ureido, C₁-C₆-alkyl ureido, amino, C₁-C₆-alkyl amino, ammonium, sulfonyloxy, C₁-C₆-alkyl sulfonyloxy, sulfonyl, C₁-C₆-alkyl sulfonyl, sulfinyl, C₁-C₆-alkyl sulfinyl, sulfanyl, C₁-C₆-alkyl sulfanyl, sulfonylamino, C₁-C₆-alkyl sulfonylamino or carbamate;

R² is selected from the group consisting of H, halogen, acyl, amino, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₁-C₆-alkyl carboxy, C₁-C₆-alkyl acyl, C₁-C₆-alkyl alkoxycarbonyl, C₁-C₆-alkyl aminocarbonyl, C₁-C₆-alkyl acyloxy, C₁-C₆-alkyl acylamino, C₁-C₆-alkyl ureido, C₁-C₆-alkyl amino, C₁-C₆-alkyl alkoxy, C₁-C₆-alkyl sulfanyl, C₁-C₆-alkyl sulfinyl, C₁-C₆-alkyl sulfonyl, C₁-C₆-alkyl sulfonylaminoaryl, aryl, C₃-C₈-cycloalkyl or heterocycloalkyl, C₁-C₆-alkyl aryl, C₂-C₆-alkenyl-aryl, C₂-C₆-alkynyl aryl, carboxy, cyano, hydroxy, C₁-C₆-alkoxy, nitro, acylamino, ureido, C₁-C₆-alkyl carbamate, sulfonylamino, sulfanyl, and sulfonyl;

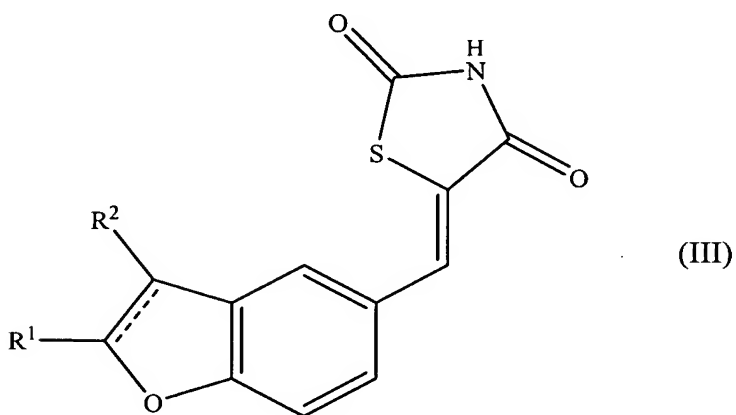
n is 0 or 1

Z, Y¹, R¹, R² are as above defined, n is 0 or 1.

Claim 21 (Currently Amended): The A thiazolidinone-vinyl fused-benzene derivative according to claim 20, wherein Y¹ is O.

Claim 22 (Currently Amended): The A thiazolidinone-vinyl fused-benzene derivative according to claim 20 ~~any claims 20 or 21~~, wherein R¹ is selected from ~~in~~ the group consisting of C₁-C₆-alkyl, C₁-C₆-alkyl aryl, aryl, C₃-C₈-cycloalkyl or heterocycloalkyl, C₁-C₆-alkyl aryl, C₂-C₆-alkenyl-aryl and ~~or~~ C₂-C₆-alkynyl aryl.

Claim 23 (Currently Amended): A thiazolidinone-vinyl fused-benzene derivative according to formula (III):



as well as its geometrical isomers, its optically active forms as enantiomers, diastereomers and its racemate forms, as well as pharmaceutically acceptable salts and pharmaceutically active derivatives thereof, and wherein

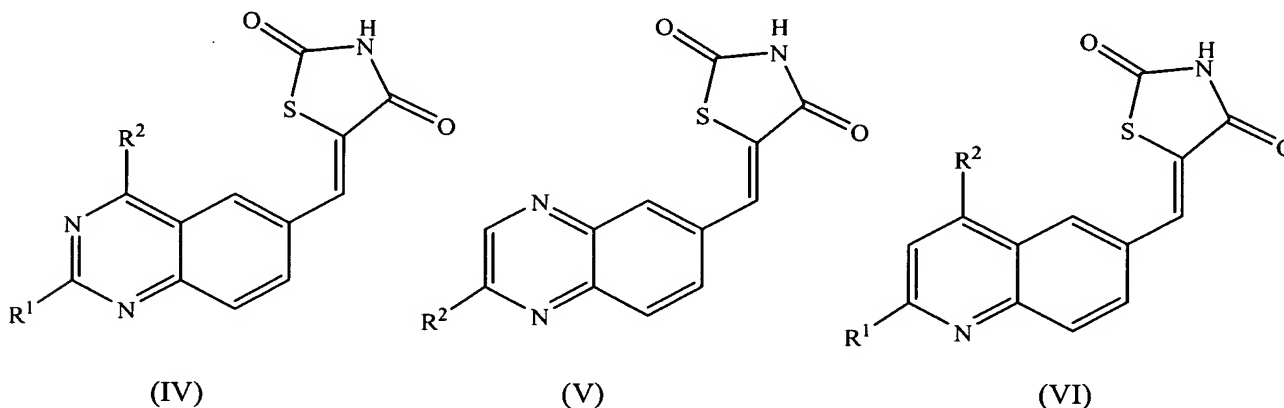
R¹ is H, CN, carboxy, acyl, C₁-C₆-alkoxy, halogen, hydroxy, acyloxy, C₁-C₆-alkyl carboxy, C₁-C₆-alkyl acyloxy, C₁-C₆-alkyl alkoxy, alkoxycarbonyl, C₁-C₆-alkyl alkoxycarbonyl, aminocarbonyl, C₁-C₆-alkyl aminocarbonyl, acylamino, C₁-C₆-alkyl acylamino, ureido, C₁-C₆-alkyl ureido, amino, C₁-C₆-alkyl amino, ammonium, sulfonyloxy, C₁-C₆-alkyl sulfonyloxy, sulfonyl, C₁-C₆-alkyl sulfonyl, sulfinyl, C₁-C₆-alkyl sulfinyl, sulfanyl, C₁-C₆-alkyl sulfanyl, sulfonylamino, C₁-C₆-alkyl sulfonylamino or carbamate;

R² is selected from the group consisting of H, halogen, acyl, amino, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₁-C₆-alkyl carboxy, C₁-C₆-alkyl acyl, C₁-C₆-alkyl

alkoxycarbonyl, C₁-C₆-alkyl aminocarbonyl, C₁-C₆-alkyl acyloxy, C₁-C₆-alkyl acylamino, C₁-C₆-alkyl ureido, C₁-C₆-alkyl amino, C₁-C₆-alkyl alkoxy, C₁-C₆-alkyl sulfanyl, C₁-C₆-alkyl sulfinyl, C₁-C₆-alkyl sulfonyl, C₁-C₆-alkyl sulfonylaminoaryl, aryl, C₃-C₈-cycloalkyl or heterocycloalkyl, C₁-C₆-alkyl aryl, C₂-C₆-alkenyl-aryl, C₂-C₆-alkynyl aryl, carboxy, cyano, hydroxy, C₁-C₆-alkoxy, nitro, acylamino, ureido, C₁-C₆-alkyl carbamate, sulfonylamino, sulfanyl, and sulfonyl

wherein R¹ and R² is as above defined.

Claim 24 (Currently Amended): A thiazolidinone-vinyl fused-benzene derivative according any of formulae (IV), (V) and (VI):



wherein R¹ is selected from the group consisting of hydrogen, halogen, cyano, C₁-C₆-alkyl, C₁-C₆-alkoxy, acyl, and alkoxy cabonyl, ~~while R² is as above defined and~~

R² is selected from the group consisting of H, halogen, acyl, amino, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₁-C₆-alkyl carboxy, C₁-C₆-alkyl acyl, C₁-C₆-alkyl alkoxycarbonyl, C₁-C₆-alkyl aminocarbonyl, C₁-C₆-alkyl acyloxy, C₁-C₆-alkyl acylamino, C₁-C₆-alkyl ureido, C₁-C₆-alkyl amino, C₁-C₆-alkyl alkoxy, C₁-C₆-alkyl sulfanyl, C₁-C₆-alkyl sulfinyl, C₁-C₆-alkyl sulfonyl, C₁-C₆-alkyl sulfonylaminoaryl, aryl, C₃-C₈-cycloalkyl or heterocycloalkyl, C₁-C₆-alkyl aryl, C₂-C₆-alkenyl-aryl, C₂-C₆-alkynyl aryl, carboxy, cyano,

hydroxy, C₁-C₆-alkoxy, nitro, acylamino, ureido, C₁-C₆-alkyl carbamate, sulfonylamino, sulfanyl, and sulfonyl.

Claim 25 (Currently Amended): The A thiazolidinone-vinyl fused-benzene derivative according to claim 19, ~~any of claims 19 to 24~~ selected from the group consisting of:

- 5-(1,3-benzodioxol-5-ylmethylene)-1,3-thiazolidine-2,4-dione₁
- 5-(1,3-benzodioxol-5-ylmethylene)-2-thioxo-1,3-thiazolidin-4-one₁
- 5-(2,3-dihydro-1,4-benzodioxin-6-ylmethylene)-1,3-thiazolidine-2,4-dione₁
- 5-(2,3-dihydro-1-benzofuran-5-ylmethylene)-1,3-thiazolidine-2,4-dione₁
- 5-[(7-methoxy-1,3-benzodioxol-5-yl)methylene]-1,3-thiazolidine-2,4-dione₁
- 5-[(9,10-dioxo-9,10-dihydroanthracen-2-yl)methylene]-1,3-thiazolidine-2,4-dione₁
- 5-[(2,2-difluoro-1,3-benzodioxol-5-yl)methylene]-1,3-thiazolidine-2,4-dione₁
- (5Z)-5-(1,3-dihydro-2-benzofuran-5-ylmethylene)-1,3-thiazolidine-2,4-dione₁
- 5-(1-benzofuran-5-ylmethylene)-1,3-thiazolidine-2,4-dione₁
- 5-[(4-methyl-3-oxo-3,4-dihydro-2H-1,4-benzoxazin-6-yl)methylene]-1,3-thiazolidine-2,4-dione₁
- 5-(1,3-benzodioxol-5-ylmethylene)-2-imino-1,3-thiazolidin-4-one₁
- 5-Quinolin-6-ylmethylene-thiazolidine-2,4-dione₁
- 5-Quinolin-6-ylmethylene-2-thioxo-thiazolidin-4-one₁
- 2-Imino-5-quinolin-6-ylmethylene-thiazolidin-4-one₁
- 5-(3-Methyl-benzo[d]isoxazol-5-ylmethylene)-thiazolidine-2,4-dione₁
- 5-(4-Phenyl-quinazolin-6-ylmethylene)-thiazolidine-2,4-dione₁
- 5-(4-Dimethylamino-quinazolin-6-ylmethylene)-thiazolidine-2,4-dione₁
- 5-[(4-aminoquinazolin-6-yl)methylene]-1,3-thiazolidine-2,4-dione₁

5-[(4-piperidin-1-ylquinazolin-6-yl)methylene]-1,3-thiazolidine-2,4-dione,₁

5-[(4-morpholin-4-ylquinazolin-6-yl)methylene]-1,3-thiazolidine-2,4-dione,₁

5-{[4-(benzylamino)quinazolin-6-yl]methylene}-1,3-thiazolidine-2,4-dione,₁

5-{[4-(diethylamino)quinazolin-6-yl]methylene}-1,3-thiazolidine-2,4-dione,₁

5-({4-[(pyridin-2-ylmethyl)amino]quinazolin-6-yl} methylene)-1,3-thiazolidine-2,4-dione,₁

5-({4-[(pyridin-3-ylmethyl)amino]quinazolin-6-yl} methylene)-1,3-thiazolidine-2,4-dione,₁

ethyl 1-{6-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]quinazolin-4-yl} piperidine-3-carboxylate,₁

ethyl 1-{6-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]quinazolin-4-yl} piperidine-4-carboxylate,₁

tert-butyl 1-{6-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]quinazolin-4-yl}-L-prolinate,₁

5-{ [4-(4-methylpiperazin-1-yl)quinazolin-6-yl]methylene}-1,3-thiazolidine-2,4-dione,₁

5-{[4-(4-pyrimidin-2-ylpiperazin-1-yl)quinazolin-6-yl]methylene}-1,3-thiazolidine-2,4-dione,₁

5-({4-[4-(4-fluorophenyl)piperidin-1-yl]quinazolin-6-yl } methylene)-1,3-thiazolidine-2,4-dione,₁

5-{ [4-(4-benzylpiperidin-1-yl)quinazolin-6-yl]methylene}-1,3-thiazolidine-2,4-dione,₁

5-({4-[4-(2-phenylethyl)piperidin-1-yl]quinazolin-6-yl} methylene)-1,3-thiazolidine-2,4-dione,₁

5-{ [4-(4-methylpiperidin-1-yl)quinazolin-6-yl]methylene}-1,3-thiazolidine-2,4-dione,₁

5-{ [4-(4-hydroxypiperidin-1-yl)quinazolin-6-yl]methylene}-1,3-thiazolidine-2,4-dione,

1-[6-(2,4-Dioxo-thiazolidin-5-ylidenemethyl)-quinazolin-4-yl]-piperidine-4-carboxylic acid,

1-[6-(2,4-Dioxo-thiazolidin-5-ylidenemethyl)-quinazolin-4-yl]-piperidine-3-carboxylic acid,

1-[6-(2,4-Dioxo-thiazolidin-5-ylidenemethyl)-quinazolin-4-yl]-pyrrolidine-2-carboxylic acid,

5-(4-Methylamino-quinazolin-6-ylmethylene)-thiazolidine-2,4-dione,

5-(4-Methoxy-quinazolin-6-ylmethylene)-thiazolidine-2,4-dione

2-Imino-5-(4-methylamino-quinazolin-6-ylmethylene)-thiazolidin-4-one,

2-Imino-5-(4-piperidine-quinazolin-6-ylmethylene)-thiazolidin-4-one,

2-Imino-5-(4-dimethylamino-quinazolin-6-ylmethylene)-thiazolidin-4-one,

5-(2-Methyl-2H-benzotriazol-5-ylmethylene)-thiazolidine-2,4-dione,

5-(3-Methyl-3H-benzotriazol-5-ylmethylene)-thiazolidine-2,4-dione,

5-(3-Ethyl-3H-benzoimidazol-5-ylmethylene)-thiazolidine-2,4-dione,

5-{[1-(4-phenylbutyl)-1H-benzimidazol-6-yl]methylene}-1,3-thiazolidine-2,4-dione,

5-[(1-prop-2-yn-1-yl-1H-benzimidazol-6-yl)methylene]-1,3-thiazolidine-2,4-dione,

5-[(1-{2-[4-(trifluoromethyl)phenyl] ethyl} -1H-benzimidazol-6-yl)methylene]-1,3-thiazolidine-2,4-dione,

5-({1-[2-(4-hydroxyphenyl)ethyl]-1H-benzimidazol-6-yl}methylene)-1,3-thiazolidine-2,4-dione,

methyl 4-{6-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1H-benzimidazol-1-yl}cyclohexanecarboxylate,

5-({1-[2-(5-methoxy-1H-indol-3-yl)ethyl]-1H-benzimidazol-6-yl}methylene)-1,3-thiazolidine-2,4-dione₁

5-({1-[(1-methyl-1H-pyrazol-4-yl)methyl]-1H-benzimidazol-6-yl}methylene)-1,3-thiazolidine-2,4-dione₁

5-({1-[2-(3,4-dimethoxyphenyl)ethyl]-1H-benzimidazol-6-yl}methylene)-1,3-thiazolidine-2,4-dione₁

5-({1-[2-(4-phenoxyphenyl)ethyl]-1H-benzimidazol-6-yl}methylene)-1,3-thiazolidine-2,4-dione₁

5-({1-[4-(trifluoromethyl)benzyl]-1H-benzimidazol-6-yl}methylene)-1,3-thiazolidine-2,4-dione₁

4-{6-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1H-benzimidazol-1-yl}cyclohexanecarboxylic acid₁

5-[(1-isobutyl-1H-benzimidazol-6-yl)methylene]-1,3-thiazolidine-2,4-dione₁

5-({1-[2-(1,3-benzodioxol-4-yl)ethyl]-1H-benzimidazol-6-yl}methylene)-1,3-thiazolidine-2,4-dione₁

5-({1-[2-(2-phenoxyphenyl)ethyl]-1H-benzimidazol-6-yl}methylene)-1,3-thiazolidine-2,4-dione₁

5-[1-(3,3-diphenylpropyl)-1H-benzimidazol-6-yl]methylene}-1,3-thiazolidine-2,4-dione₁

5-{{1-(2-methoxybenzyl)-1H-benzimidazol-6-yl}methylene}-1,3-thiazolidine-2,4-dione₁

5-{{1-(3-furylmethyl)-1H-benzimidazol-6-yl}methylene}-1,3-thiazolidine-2,4-dione₁

5-[(1-propyl-1H-benzimidazol-6-yl)methylene]-1,3-thiazolidine-2,4-dione₁

5-Quinoxalin-6-ylmethylene-thiazolidine-2,4-dione₁

5-Quinoxalin-6-ylmethylene-2-thioxo-thiazolidin-4-one₁

2-Imino-5-quinoxalin-6-ylmethylene-thiazolidin-4-one,₁
5-Benzothiazol-6-ylmethylene-thiazolidine-2,4-dione,₁
5-(3-Methyl-benzofuran-5-ylmethylene)-thiazolidine-2,4-dione,₁
5-(2-Bromo-3-methyl-benzofuran-5-ylmethylene)-thiazolidine-2,4-dione,₁
5-(3-bromo-benzofuran-5-ylmethylene)-thiazolidine-2,4-dione,₁
3-[5-(2,4-Dioxo-thiazolidin-5-ylidenemethyl)-benzofuran-3-yl]-acrylic acid ethyl
ester,₁
3-[5-(2,4-Dioxo-thiazolidin-5-ylidenemethyl)-benzofuran-3-yl]-acrylic acid,₁
5-[3-(3-Oxo-3-piperidin-1-yl-propenyl)-benzofuran-5-ylmethylene]-thiazolidine-2,4-
dione,₁
Methyl 1-((3-{5-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1-benzofuran-3-
yl}prop-2-enoyl)prolinate,₁
Methyl 1-((3-{5-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1-benzofuran-3-
yl}prop-2-enoyl)-D-prolinate,₁
5-((3-{3-[(3-oxo-3-pyrrolidin-1-ylprop-1-en-1-yl]-1-benzofuran-5-yl}methylene)-1,3-
thiazolidine-2,4-dione,₁
5-((3-{3-morpholin-4-yl-3-oxoprop-1-en-1-yl]-1-benzofuran-5-yl}methylene)-1,3-
thiazolidine-2,4-dione,₁
Methyl 1-(3-{5-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1-benzofuran-3-
yl}prop-2-enoyl)-L-prolinate,₁
N-cyclohexyl-3-{5-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1-benzofuran-3-yl)-
N-methylacrylamide,₁
3-{5-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1-benzofuran-3-yl}-N-ethyl-N-(2-
hydroxyethyl)acrylamide,₁

N-cyclobutyl-3-{5-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1-benzofuran-3-yl}
acrylamide,

5-({3-[3-azetidin-1-yl-3-oxoprop-1-en-1-yl]-1-benzofuran-5-yl}methylene)-1,3-
thiazolidine-2,4-dione,

5-({3-[3-(1,3-dihydro-2H-isoindol-2-yl)-3-oxoprop-1-en-1-yl]-1-benzofuran-5-
yl}methylene)-1,3-thiazolidine-2,4-dione,

5-({3-[3-azepan-1-yl-3-oxoprop-1-en-1-yl]-1-benzofuran-5-yl}methylene)-1,3-
thiazolidine-2,4-dione,

3-{5-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1-benzofuran-3-yl}-N-piperidin-1-
ylacrylamide,

3-{5-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1-benzofuran-3-yl}-N-(pyridin-3-
ylmethyl)acrylamide,

N-cyclohexyl-3-{5-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1-benzofuran-3-yl}
acrylamide,

5-({3-[3-(4-methylpiperazin-1-yl)-3-oxoprop-1-en-1-yl]-1-benzofuran-5-
yl}methylene)-1,3-thiazolidine-2,4-dione,

N-cycloheptyl-3-{5-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1-benzofuran-3-
yl}acrylamide,

5-({3-[3-(2,5-dihydro-1H-pyrrol-1-yl)-3-oxoprop-1-en-1-yl]-1-benzofuran-5-yl}
methylene)-1,3-thiazolidine-2,4-dione,

N-cyclopentyl-3-{5-[(2,4-dioxo-1,3-thiazolidin-5-ylidene)methyl]-1-benzofuran-3-
yl}acrylamide,

3-[5-(2,4-Dioxo-thiazolidin-5-ylidenemethyl)-benzofuran-3-yl]-propionic acid ethyl
ester,

3-[5-(2,4-Dioxo-thiazolidin-5-ylidenemethyl)-benzofuran-3-yl]-propionic acid,

5-[3-(3-Oxo-3-piperidin-1-yl-propyl)-benzofuran-5-ylmethylene]-thiazolidine-2,4-dione,

6-(2,4-Dioxo-thiazolidin-5-ylidenemethyl)-2,3-dihydro-benzo[1,4]oxazine-4-carboxylic acid tert-butyl ester,

5-(3,4-Dihydro-2H-benzo[1,4]oxazin-6-ylmethylene)-thiazolidine-2,4-dione,

5-(4-Benzoyl-3,4-dihydro-2H-benzo[1,4]oxazin-6-ylmethylene)-thiazolidine-2,4-dione,

5-(4-Acetyl-3,4-dihydro-2H-benzo[1,4]oxazin-6-ylmethylene)-thiazolidine-2,4-dione,
6-(2,4-Dioxo-thiazolidin-5-ylidenemethyl)-benzo[1,4]oxazine-4-carboxylic acid tert-butyl ester,

[6-(2,4-Dioxo-thiazolidin-5-ylidenemethyl)-3-oxo-2,3-dihydro-benzo[1,4]-oxazin-4-yl]-acetic acid methyl ester,

N-Benzyl-2-[6-(2,4-dioxo-thiazolidin-5-ylidenemethyl)-3-oxo-2,3-dihydro-benzo[1,4]oxazin-4-yl]-acetamide,

~~5-(4-Butyl-3-oxo-3,4-dihydro-2H-benzo[1,4]oxazin-6-ylmethylene)-thiazolidine-2,4-dione~~

5-(4-Butyl-3-oxo-3,4-dihydro-2H-benzo[1,4]oxazin-6-ylmethylene)-thiazolidine-2,4-dione,

5-(4-Benzyl-3-oxo-3,4-dihydro-2H-benzo[1,4]oxazin-6-ylmethylene)-thiazolidine-2,4-dione,

5-(2-Chloro-benzofuran-5-ylmethylene)-thiazolidine-2,4-dione,

5-(3-Amino-benzo[d]isoxazol-5-ylmethylene)-thiazolidine-2,4-dione,

5-(3-Phenylethynyl-benzofuran-5-ylmethylene)-thiazolidine-2,4-dione,

5-Benzo[1,2,5]thiadiazol-5-ylmethylene-thiazolidine-2,4-dione,

5-Benzo[1,2,5]oxadiazol-5-ylmethylene-thiazolidine-2,4-dione,

5-(2-Methyl-benzofuran-6-ylmethylene)-thiazolidine-2,4-dione,
5-(2-Carboxymethyl-benzofuran-6-ylmethylene)-thiazolidine-2,4-dione,
5-(3-Bromo-2-fluoro-2,3-dihydro-benzofuran-6-ylmethylene)-thiazolidine-2,4-dione,
and
5-(2-Fluoro-benzofuran-6-ylmethylene)-thiazolidine-2,4-dione.

Claim 26 (Currently Amended): A method of preparing a medicament, comprising, contacting the thiazolidinone-vinyl fused-benzene derivative according to claim 19, with one or more pharmaceutically acceptable additives ~~any of claims 19 to 25 for use as a~~ medicament.

Claim 27 (Currently Amended): A pharmaceutical composition, comprising ~~containing~~ at least one thiazolidinone-vinyl fused-benzene derivative according to claim 19, ~~any of claims 19 to 25~~ and a pharmaceutically acceptable carrier, diluent or excipient thereof.

Claim 28 (Currently Amended): A method ~~Use of a thiazolidinone-vinyl fused-benzene derivative according to any of claims 19 to 25 for the preparation of a medicament~~ for the prophylaxis and/or treatment of one or more diseases or disorders, selected from autoimmune disorders and/or inflammatory diseases, cardiovascular diseases, neurodegenerative diseases, bacterial or viral infections, kidney diseases, platelet aggregation, cancer, graft rejection or lung injuries, comprising, administering to a subject in need thereof, an effective amount of the thiazolidinone-vinyl fused-benzene derivative according to claim 19.

Claim 29 (Currently Amended): ~~The method Use of a thiazolidinone-vinyl fused-benzene-derivative~~ according to claim 28, wherein said one or more diseases are selected from ~~in~~ the group consisting of including multiple sclerosis, psoriasis, rheumatoid arthritis, ~~multiple sclerosis~~[[,]] systemic lupus erythematosus, inflammatory bowel disease, lung inflammation, and thrombosis or brain infection/inflammation such as meningitis or encephalitis.

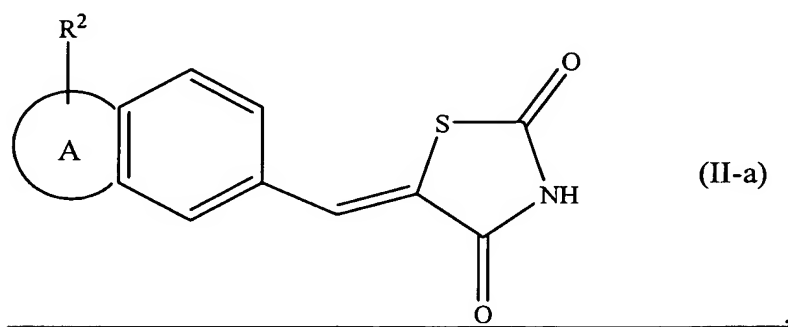
Claim 30 (Currently Amended): ~~The method Use of a thiazolidinone-vinyl fused-benzene-derivative~~ according to claim 28, wherein the said one or more diseases are selected from ~~in~~ the group consisting of including Alzheimer's disease, Huntington's disease, CNS trauma, stroke and ~~or~~ ischemic conditions.

Claim 31 (Currently Amended): ~~The method Use of a thiazolidinone-vinyl fused-benzene-derivative~~ according to claim 28, wherein said one or more diseases are selected from ~~in~~ the group consisting of including atherosclerosis, heart hypertrophy, cardiac myocyte dysfunction, elevated blood pressure and ~~or~~ vasoconstriction.

Claim 32 (Currently Amended): ~~The method Use of a thiazolidinone-vinyl fused-benzene-derivative~~ according to claim 28, wherein said one or more diseases are selected from ~~in~~ the group consisting of including chronic obstructive pulmonary disease, anaphylactic shock fibrosis, psoriasis, allergic diseases, asthma, stroke or ischemic conditions, ischemia-reperfusion, platelets aggregation/activation, skeletal muscle atrophy/hypertrophy, leukocyte recruitment in cancer tissue, angiogenesis, invasion metastasis, ~~in particular~~ melanoma, Kaposi's sarcoma, acute and chronic bacterial and viral infections, sepsis, transplantation, graft rejection, pancreatitis, multiorgane failure, glomerulo

sclerosis, glomerulo nephritis, progressive renal fibrosis, endothelial and epithelial injuries in the lung ~~and or in~~ general lung airways inflammation.

Claim 33 (Currently Amended): A method for the prophylaxis and/or treatment of one or more diseases mediated by PI3 kinase, comprising administering to a subject in need thereof, an effective amount of a thiazolidinone-vinyl fused-benzene derivative according to formula (II-a): Use according to any of claims 28 to 32 for the modulation, particularly the inhibition of PI3Kinase activity

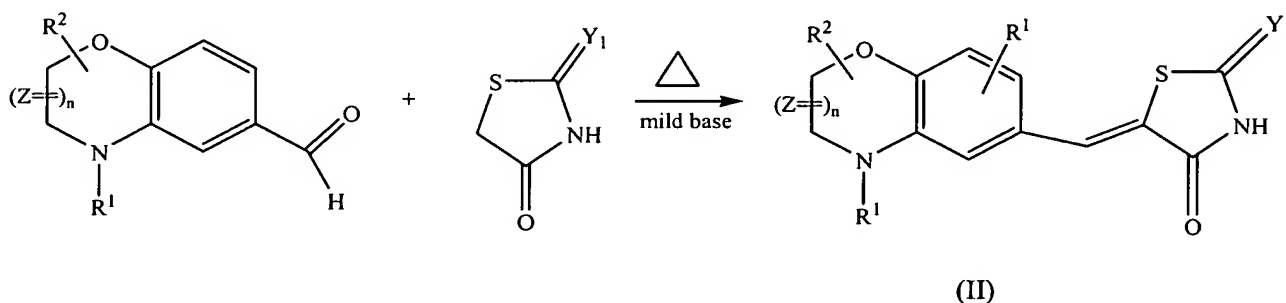


wherein A is selected from the group consisting of dioxol, dioxin, dihydrofuran, (dihydro) furanyl, (dihydro)oxazinyl, pyridinyl, isooxazolyl, oxazolyl (dihydro)naphthalenyl, pyrimidinyl, triazolyl, imidazolyl, pyrazinyl, thiazolidinyl, thiadiazolyl, and oxadiazolyl;

R² is selected from the group consisting of H, halogen, acyl, amino, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₁-C₆-alkyl carboxy, C₁-C₆-alkyl acyl, C₁-C₆-alkyl alkoxycarbonyl, C₁-C₆-alkyl aminocarbonyl, C₁-C₆-alkyl acyloxy, C₁-C₆-alkyl acylamino, C₁-C₆-alkyl ureido, C₁-C₆-alkyl carbamate, C₁-C₆-alkyl amino, C₁-C₆-alkyl alkoxy, C₁-C₆-alkyl sulfanyl, C₁-C₆-alkyl sulfinyl, C₁-C₆-alkyl sulfonyl, C₁-C₆-alkyl sulfonylaminoaryl, aryl, C₃-C₈-cycloalkyl or heterocycloalkyl, C₁-C₆-alkyl aryl, C₂-C₆-alkenyl-aryl, C₂-C₆-alkynyl aryl, carboxy, cyano, hydroxy, C₁-C₆-alkoxy, nitro, acylamino, ureido, sulfonylamino, sulfanyl, and sulfonyl.

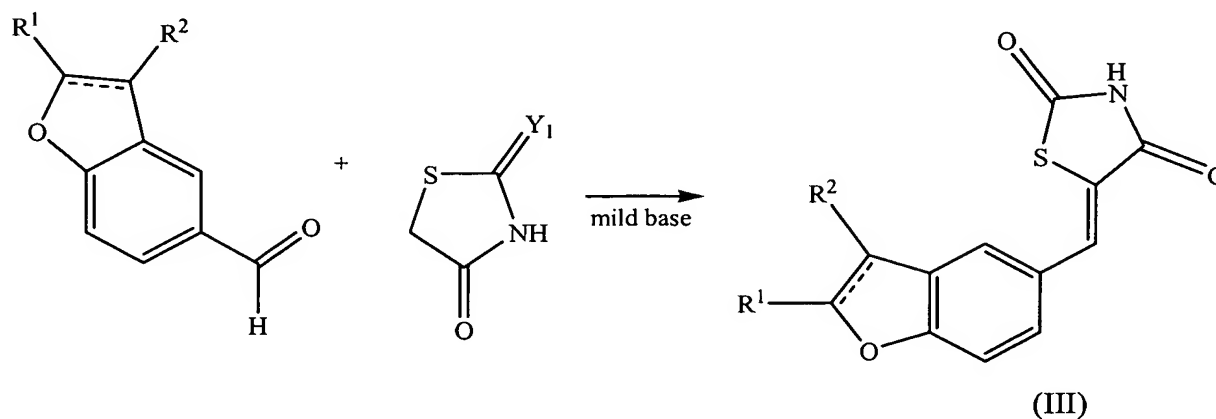
Claim 34 (Currently Amended): The method Use according to claim 33, wherein said PI3 Kinase ~~PI3Kinase~~ is a PI3 Kinase-γ ~~PI3Kinase-γ~~.

Claim 35 (Currently Amended): A method of preparing a thiazolidinone-vinyl fused-benzene ~~derivatives~~ derivative of formula (I) ~~(II)~~, according to claim 20, comprising the following step:



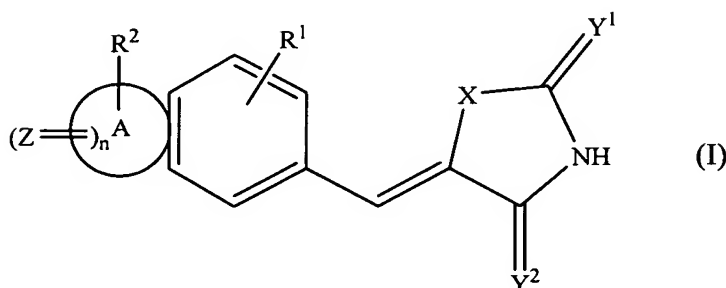
wherein R¹, R², Y¹, Z and n are as above defined in formula (II).

Claim ~~36~~ 33 (Currently Amended): A method of preparing a thiazolidinone-vinyl fused-benzene derivative ~~derivatives~~ of formula (III), according to claim 23, comprising the following step:



wherein R¹, R² ~~and Y¹~~ are as above defined for formula (III), and Y¹ is O, S or NH.

Claim 37 (New): A composition, comprising, a compound according to formula (I):



as well as its geometrical isomers, its optically active forms as enantiomers, diastereomers and its racemate forms, as well as pharmaceutically acceptable salts and pharmaceutically active derivatives thereof, wherein

A is a 5-8 membered heterocyclic or carbocyclic group, wherein said carbocyclic group may be fused with aryl, heteroaryl, cycloalkyl or heterocycloalkyl;

X is S, O or NH;

Y^1 and Y^2 are independently S, O or NH;

Z is S or O;

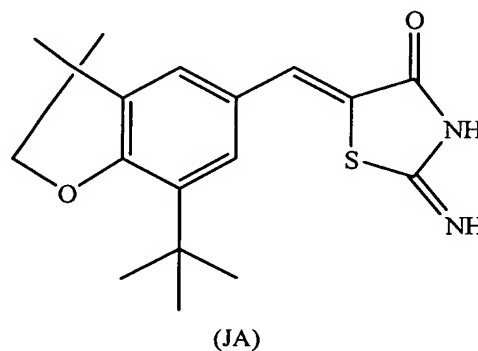
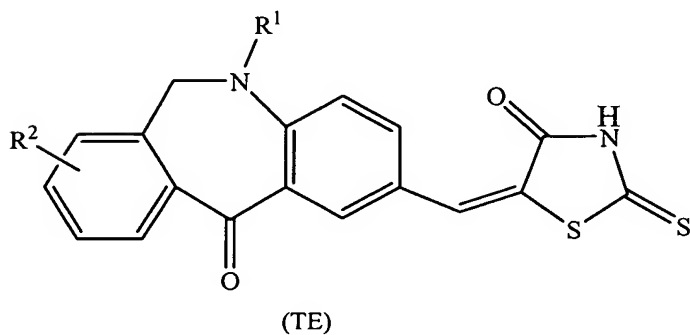
R^1 is H, CN, carboxy, acyl, $\text{C}_1\text{-C}_6\text{-alkoxy}$, halogen, hydroxy, acyloxy, $\text{C}_1\text{-C}_6\text{-alkyl}$ carboxy, $\text{C}_1\text{-C}_6\text{-alkyl}$ acyloxy, $\text{C}_1\text{-C}_6\text{-alkyl}$ alkoxy, alkoxycarbonyl, $\text{C}_1\text{-C}_6\text{-alkyl}$ alkoxycarbonyl, aminocarbonyl, $\text{C}_1\text{-C}_6\text{-alkyl}$ aminocarbonyl, acylamino, $\text{C}_1\text{-C}_6\text{-alkyl}$ acylamino, ureido, $\text{C}_1\text{-C}_6\text{-alkyl}$ ureido, amino, $\text{C}_1\text{-C}_6\text{-alkyl}$ amino, ammonium, sulfonyloxy, $\text{C}_1\text{-C}_6\text{-alkyl}$ sulfonyloxy, sulfonyl, $\text{C}_1\text{-C}_6\text{-alkyl}$ sulfonyl, sulfinyl, $\text{C}_1\text{-C}_6\text{-alkyl}$ sulfinyl, sulfanyl, $\text{C}_1\text{-C}_6\text{-alkyl}$ sulfanyl, sulfonylamino, $\text{C}_1\text{-C}_6\text{-alkyl}$ sulfonylamino or carbamate;

R^2 is selected from the group consisting of H, halogen, acyl, amino, $\text{C}_1\text{-C}_6\text{-alkyl}$, $\text{C}_2\text{-C}_6\text{-alkenyl}$, $\text{C}_2\text{-C}_6\text{-alkynyl}$, $\text{C}_1\text{-C}_6\text{-alkyl}$ carboxy, $\text{C}_1\text{-C}_6\text{-alkyl}$ acyl, $\text{C}_1\text{-C}_6\text{-alkyl}$ alkoxycarbonyl, $\text{C}_1\text{-C}_6\text{-alkyl}$ aminocarbonyl, $\text{C}_1\text{-C}_6\text{-alkyl}$ acyloxy, $\text{C}_1\text{-C}_6\text{-alkyl}$ acylamino, $\text{C}_1\text{-C}_6\text{-alkyl}$ ureido, $\text{C}_1\text{-C}_6\text{-alkyl}$ amino, $\text{C}_1\text{-C}_6\text{-alkyl}$ alkoxy, $\text{C}_1\text{-C}_6\text{-alkyl}$ sulfanyl, $\text{C}_1\text{-C}_6\text{-alkyl}$

sulfinyl, C₁-C₆-alkyl sulfonyl, C₁-C₆-alkyl sulfonylaminoaryl, aryl, C₃-C₈-cycloalkyl or heterocycloalkyl, C₁-C₆-alkyl aryl, C₂-C₆-alkenyl-aryl, C₂-C₆-alkynyl aryl, carboxy, cyano, hydroxy, C₁-C₆-alkoxy, nitro, acylamino, ureido, C₁-C₆-alkyl carbamate, sulfonylamino, sulfanyl, or sulfonyl;

n is 0, 1 or 2;

with the proviso that the following compounds are excluded:



wherein R¹ is a lower alkyl or aralkyl and R² is H or a halogen.